

Step-by-Step guide to configure Azure File Sync

Table of Contents

Terms	3
Tracking Document	4
Create Storage Sync Service.....	5
Install Azure File Sync Agent	7
Create File Shares	12
Create Sync Group	14
Enabling Backup Services	18

Terms

Azure File Sync Agent

It is an agent which we need to install in on-premises windows server to enable sync with Azure file share. It includes three components,

1. **FileSyncSvc.exe** – This is the service responsible for monitoring changes in local server initiate sync with Azure file share.
2. **StorageSync.sys** – This component is responsible for tiering files to Azure files. Cloud tiering is additional feature of Azure File Sync. It can use with not frequently used files greater than 64Kb. When this enabled, local file replaced with URL to files in Azure file share. When user access it, in background it recalls the file from Azure file share. End user will not have any difference experience as it all happens in back end.
3. **PowerShell cmdlets** – This helps to manage Microsoft.StorageSync Azure resource provider using PowerShell commands.

Storage Sync Service

According to Microsoft *“The Storage Sync Service is the top-level Azure resource for Azure File Sync. The Storage Sync Service resource is a peer of the storage account resource and can similarly be deployed to Azure resource groups. A distinct top-level resource from the storage account resource is required because the Storage Sync Service can create sync relationships with multiple storage accounts via multiple sync groups. A subscription can have multiple Storage Sync Service resources deployed.”*

Sync group

Sync group defines the boundaries of sync job. A sync group includes cloud endpoint and server end point. Storage sync service can have multiple sync group.

Cloud endpoint

Cloud endpoints represent an Azure file share. One cloud endpoint can only have one file share which means one Azure file share responsible for one sync group.

Server endpoint

Server endpoints represent the local server directory which will cache files from Azure file share. A one server can hold multiple server endpoints, but one endpoint can't be part of multiple sync groups. If it's still added, it will merge with the files belongs to other endpoints in same sync group.

Registered Server

Registered server represents the trust relationship between the server and the storage sync service. It is one-to-one connection. However, one storage sync service can have many servers registered with it.

Tracking Document

Example of Tracking Document

Please save the Tracking document on the A&E SharePoint under Cloud/Azure File Services

SWVROCFLSAFSP01 Azure File Server Configuration

Service Now Ticket# INC1190103

Subscription: AZ-USA-LZ-PRD-SUB-01

Resource Group: AZ-US-E-PRD-CLR-RG-01

Location: East US

Storage account: azuselzprdclrsta0201

Storage Sync Service: azuselzprdclrsta0201-FileSync-P01

Private Endpoint: AZ-US-E-PRD-CLR-RG-01-PrivEndpoint01

Private Endpoint FQDN Address: azuselzprdclrsta0201.privatelink.file.core.windows.net

Private Endpoint IP Address: 10.254.137.4

Recovery Vault: AZ-US-E-PRD-GRS-RSV-01

Backup Policy: DefaultAFSPolicy

*****CHANGE STORAGE TO HOT OR COOL AFTER UPLOAD FINISH**

Initial Folder List:

Folder Name	CloudTiering Enabled	Backup Enabled	Storage Tier	Status
E:\Legacy_Catsweb	yes	yes	Cold	Completed
E:\QLO_Rheocalc	yes	yes	Hot	Completed
E:\ToolRoom	yes	yes	Hot	Completed
F:\Business_Analytics	yes	yes	Hot	Completed
F:\salesplanning	yes	yes	Hot	Completed
G:\hypprd_share	yes	yes	Hot	Completed
G:\USA_AD_Team	yes	yes	Cool	Completed
H:\Quality	yes	yes	Cool	Completed

Create Storage Sync Service

Note: As a good practice, Create the Storage Sync Group inside the Resource group where the Storage Account reside.

Naming Convention: StorageAccountName-FileSync-P01

- 1) Log in to Azure Portal
- 2) Go to **New | Create a resource | Azure File Sync | Create**

Microsoft Azure

Home > New > Azure File Sync (preview)

Azure File Sync (preview)

Microsoft

Azure File Sync extends on premises files servers into Azure providing cloud benefits while maintaining performance and compatibility.

Azure File Sync provides:

- Multi-site access - provide write access to the same data across Windows Servers and Azure Files
- Cloud Tiering - store only recently accessed data on local servers
- Integrates with Azure backup - no need to back up your data on premises
- Rapid DR - restore file metadata immediately and recall data as needed

[Twitter](#) [Facebook](#) [LinkedIn](#) [YouTube](#) [Google+](#) [Email](#)

PUBLISHER: Microsoft

USEFUL LINKS: [Documentation](#), [Pricing details](#), [Getting Started](#)

Create

3) In new window type name for sync service and select relevant resource group for it. if required can create new resource group. once you fill in info, click on **create**.

Microsoft Azure

Home > New > Azure File Sync (preview) > Deploy Storage Sync

Create a resource

Deploy Storage Sync
PREVIEW

* Name
rebelsync ✓

* Subscription
Visual Studio Premium with MSDN

* Resource group
☐ Create new ☒ Use existing
rebelfile

* Location
West US

☐ Pin to dashboard

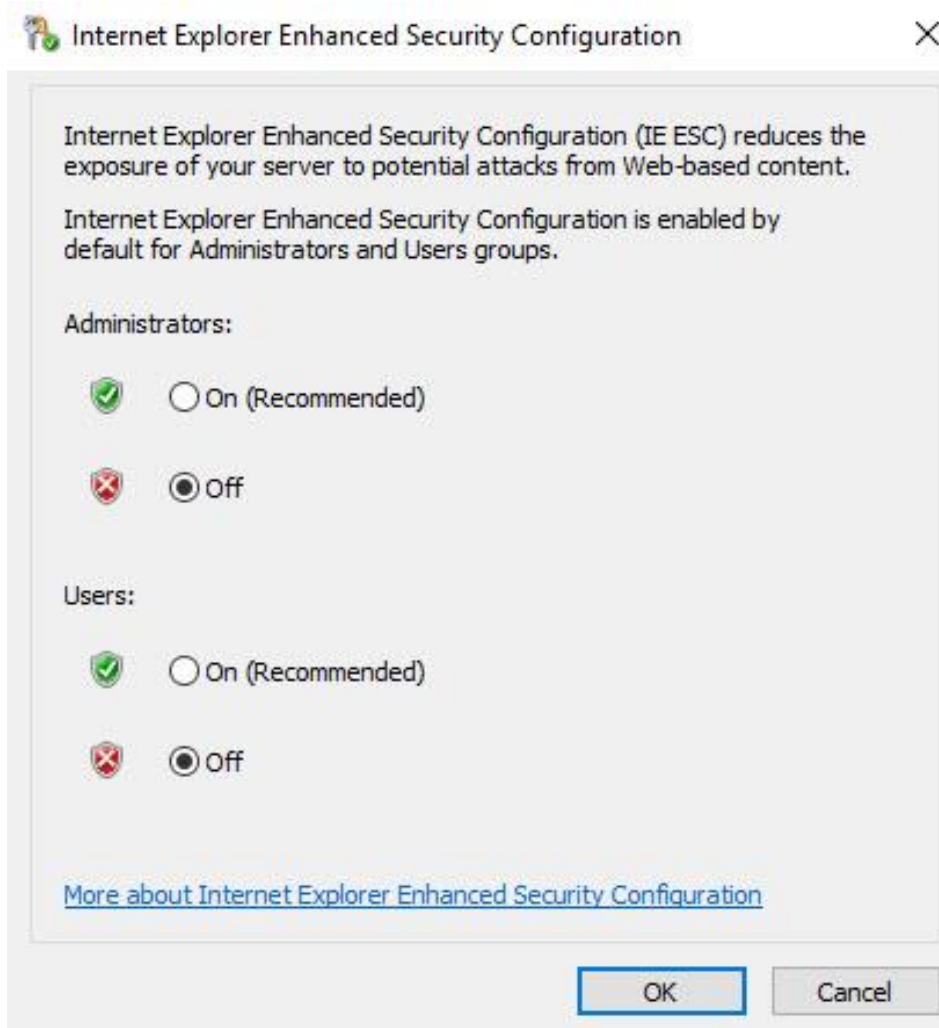
Create Automation options

Install Azure File Sync Agent

Next step in configuration is to install azure file sync agent in on-premises server.

Before install agent,

- Log in to server and disabled **Internet Explorer Enhanced Security Configuration** for administrators and users.



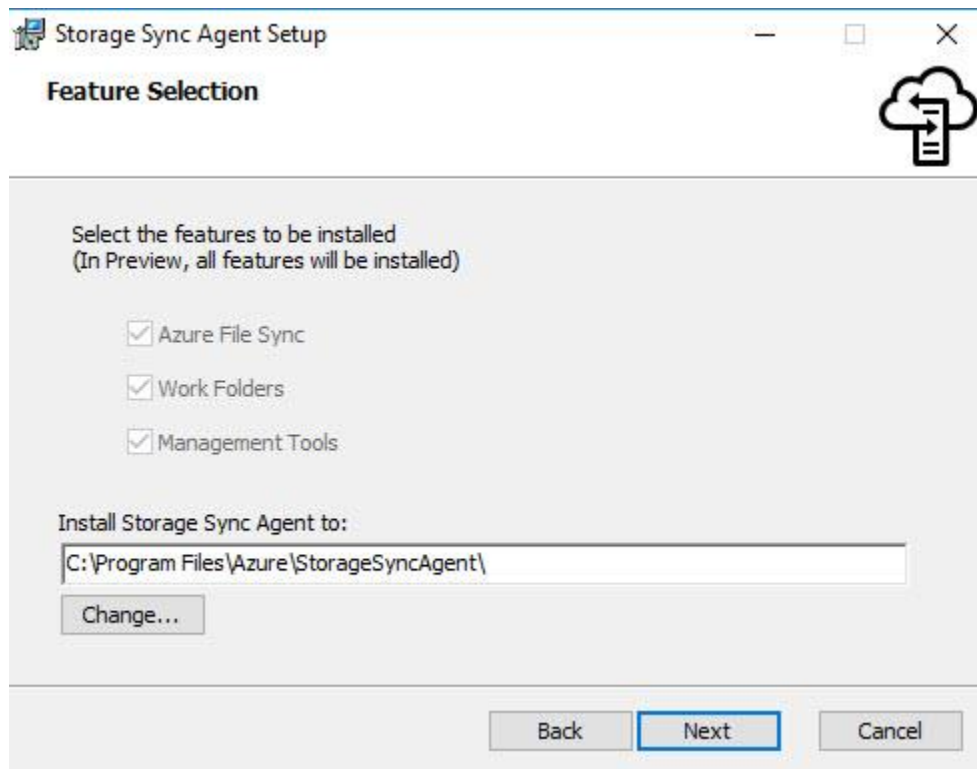
Once above in place, go and download file sync agent from <https://www.microsoft.com/en-us/download/details.aspx?id=55988>

Once download is completed, double click to start the installation. In initial page, click **Next** to continue.

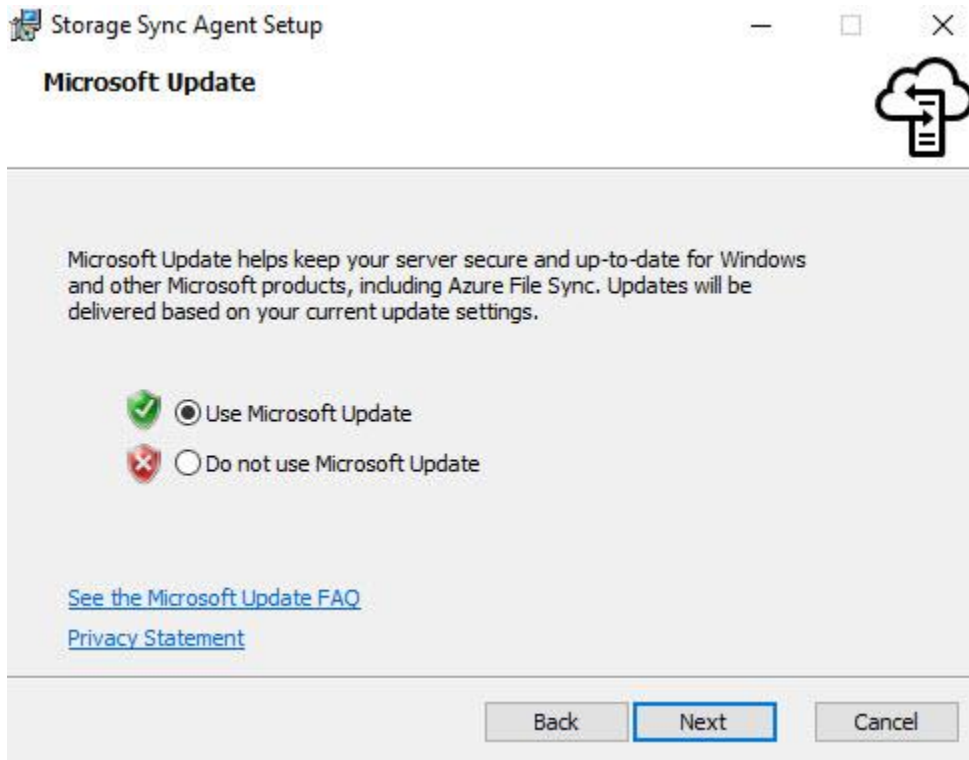


In next page, accept the license agreement and click on **Next**.

After that in next window we can select the path for installation.

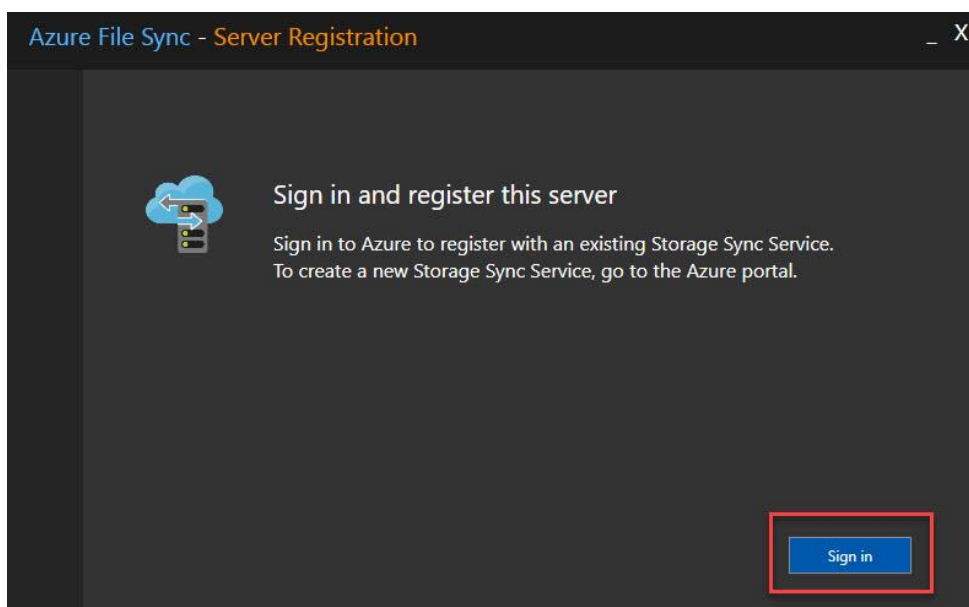


In next window it asks in future how you need to update the agent version. It can be done using windows update.




In next window, keep default settings and click on **Install** to begin installation.



Once installation is completed, it opens Azure File Sync agent wizard. First step is to register the server. in window click on **Sign in** to start the process.



Then sign in using your Azure global administrator account.

Sign in to your Microsoft account ✕



Enter password


[Back](#) [Sign in](#)

[Forgot my password](#)

[Sign in with a different Microsoft account](#)

In next window select the **Azure Subscription, Resource group, Storage Sync service** and click on **Register**

Azure File Sync - Server Registration ✕

1 


Choose a Storage Sync Service

Azure Subscription

Subscription ID:

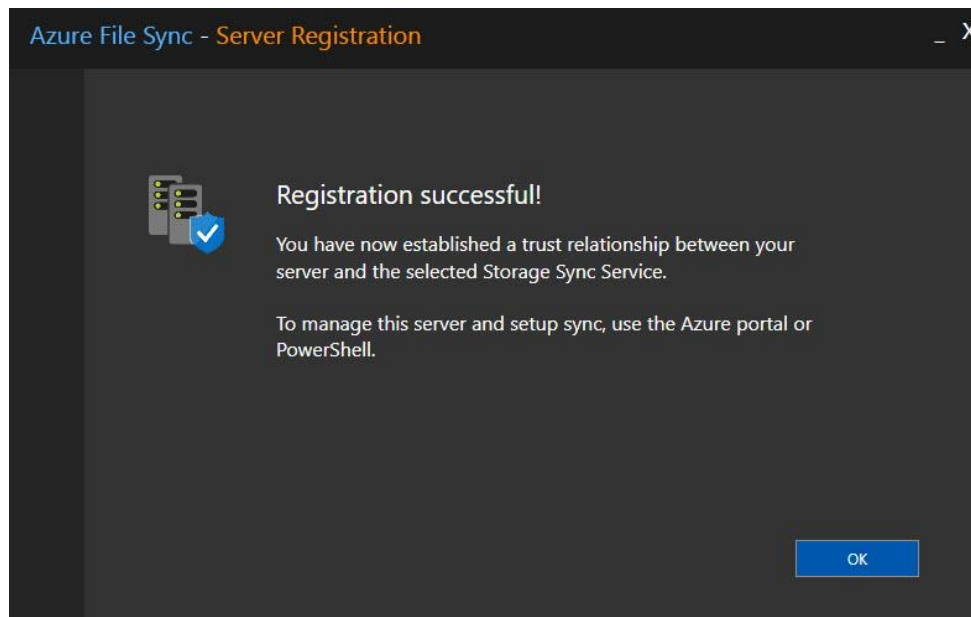
Resource Group

Storage Sync Service

2 

[Register](#)

Then it will ask again for login, once it is done it will complete the registration process.



Login into the Azure Portal and verify the server has been registered and the Status is **“Online”**

Home > azuseltprdcirsta0201 > AZ-US-E-PRD-CLR-RG-01 > azuseltprdcirsta0201-FileSync-P01

azuseltprdcirsta0201-FileSync-P01 | Registered servers

Storage Sync Service

Search (Ctrl+/)

Overview
Activity log
Access control (IAM)
Tags

Settings
Network
Locks

Sync
Sync groups
Registered servers
Getting Started

To register a server:

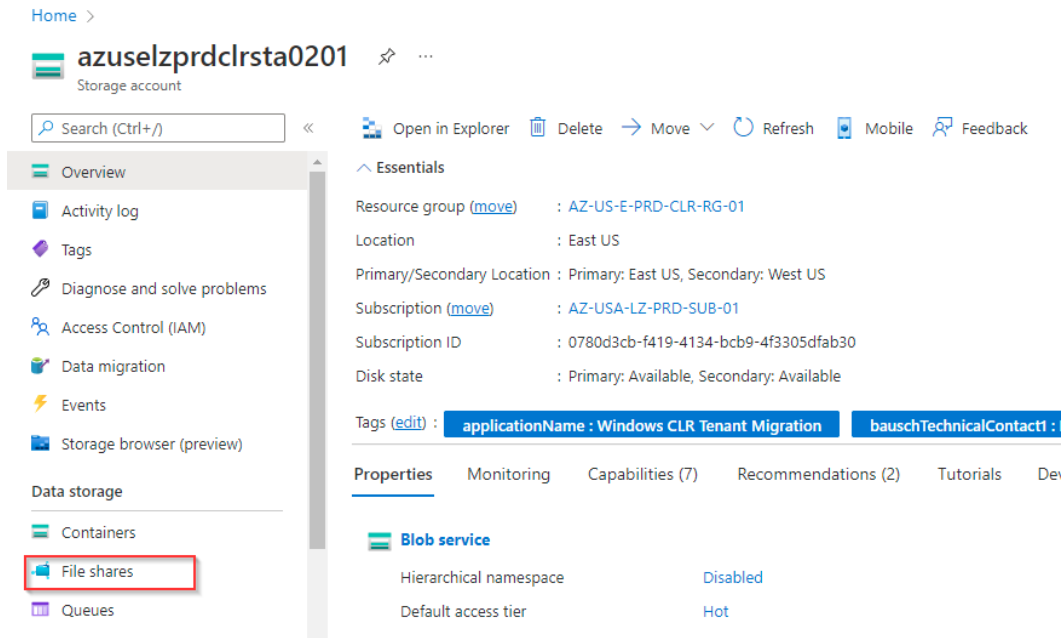
- 1 Download the [Azure File Sync agent](#) and install it on all servers you want to sync.
- 2 After finishing the agent install, use the server registration utility that opens to register the server to this Storage Sync Service.

Refresh

Server Name	State	Type	Operating System	Agent Version
SWVROCFSLAFSP01.blamercas.bausch.com	Online	Server	Windows Server 2019	14.1

Create File Shares

Navigate to the Storage Account and select File Share



Home > azusclzprdcrlsta0201 Storage account

Search (Ctrl+/) << Open in Explorer Delete Move Refresh Mobile Feedback

Overview

- Activity log
- Tags
- Diagnose and solve problems
- Access Control (IAM)
- Data migration
- Events
- Storage browser (preview)

Data storage

- Containers
- File shares**
- Queues

Essentials

Resource group (move) : AZ-US-E-PRD-CLR-RG-01

Location : East US

Primary/Secondary Location : Primary: East US, Secondary: West US

Subscription (move) : AZ-USA-LZ-PRD-SUB-01

Subscription ID : 0780d3cb-f419-4134-bcb9-4f3305dfab30

Disk state : Primary: Available, Secondary: Available

Tags (edit) : applicationName : Windows CLR Tenant Migration bauschTechnicalContact1 :

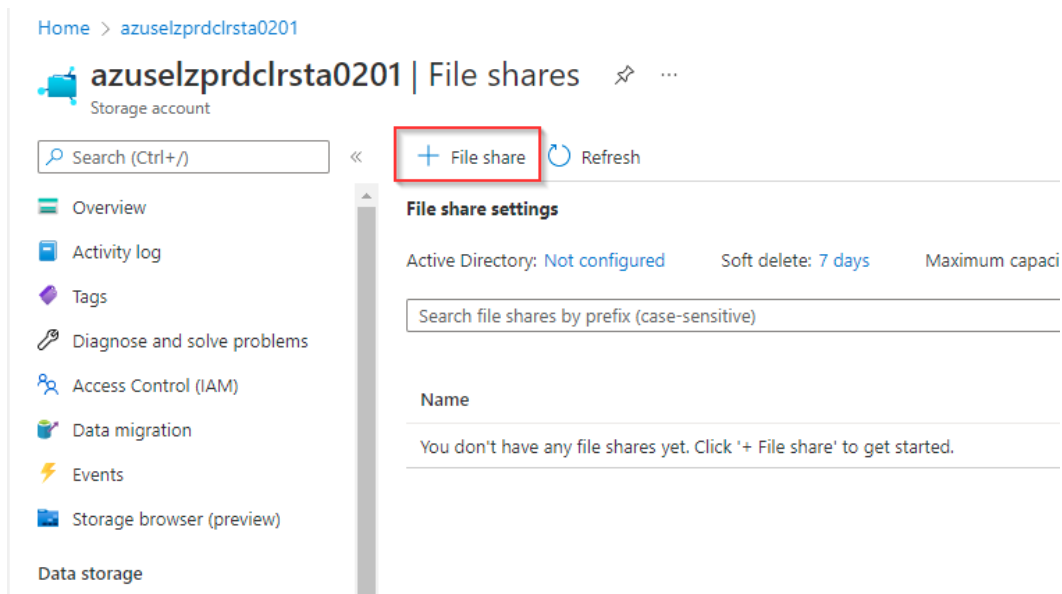
Properties Monitoring Capabilities (7) Recommendations (2) Tutorials Dev

Blob service

Hierarchical namespace : Disabled

Default access tier : Hot

Click On "+ File Share to create a new file share



Home > azusclzprdcrlsta0201 Storage account

azusclzprdcrlsta0201 | File shares << >>

Search (Ctrl+/) << + File share Refresh

Overview

- Activity log
- Tags
- Diagnose and solve problems
- Access Control (IAM)
- Data migration
- Events
- Storage browser (preview)

Data storage

File share settings

Active Directory: Not configured Soft delete: 7 days Maximum capacity

Search file shares by prefix (case-sensitive)

Name

You don't have any file shares yet. Click '+ File share' to get started.

When creating a new file Share use the format below:

Naming Convention: StorageAccount-ServerName-fs-DriveLetter-FolderName

Keep the Tier as **“Transaction Optimized”** for the Initial Sync, after that we can change to Hot or Cold.

Click on **Create**, repeat, and Create as many shares needed per server

New file share



Name *

azuselzprdcrlsta0201-swwrocflsafsp01-fs-e-legacy-castweb



Tier ⓘ

Transaction optimized



Performance

Maximum IO/s ⓘ 20000

Egress Rate ⓘ 300 MiBytes / s

Ingress Rate ⓘ 300 MiBytes / s

Maximum capacity 100 TiB



To use the SMB protocol with this share, check if you can communicate over port 445. These scripts for [Windows clients](#) and [Linux clients](#) can help. Learn how to [circumvent port 445 issues](#).

Create

Cancel

Create Sync Group

Go back to the Resource group where we created the Storage Sync Services and click on the Storage Sync Service.

Home > [azusclzprdcrlsta0201](#) > **AZ-US-E-PRD-CLR-RG-01** Resource group

Search (Ctrl+/) << + Create Edit columns Delete resource group Refresh Export to CSV Open query Assign tags Move Delete Export ter

Overview

- Activity log
- Access control (IAM)
- Tags
- Resource visualizer
- Events

Settings

- Deployments
- Security
- Policies
- Properties
- Locks
- Cost Management
 - Cost analysis

Essentials

Subscription (move): [AZ-USA-LZ-PRD-SUB-01](#) Deployments: [6 Succeeded](#)

Subscription ID: 0780d3cb-f419-4134-bcb9-4f3305dfab30 Location: East US

Tags (edit): applicationName: Windows CLR Tenant Migration bauschTechnicalContact1: Irvin.Irizarry@bauschhealth.com bauschTechnicalContact2: Irvin.Irizarry@bauschhealth.com

Resources Recommendations (2)

Filter for any field... Type == all Location == all Add filter

Showing 1 to 4 of 4 records. Show hidden types

Name	Type
azusclzprdcrlsta0201	Private endpoint
azusclzprdcrlsta0201	Storage account
azusclzprdcrlsta0201-FileSync-P01	Storage Sync Service
azusclzprdcrlsta0201.nic.29f5ea9a-468b-4237-a35a-089b377d9feb	Network interface

Click on “+ Sync Group”

Home > [azusclzprdcrlsta0201](#) > [AZ-US-E-PRD-CLR-RG-01](#) > **azusclzprdcrlsta0201-FileSync-P01** Storage Sync Service

Search (Ctrl+/) << + Sync group Refresh Move Delete

Overview

- Activity log
- Access control (IAM)
- Tags

Settings

- Network
- Locks

Have feedback on Azure File Sync? Fill out this quick Azure File Sync survey. →

Sync groups

Sync group name	Health
No items to display.	

Naming Convention: ServerName-fs-DriveLetter-FolderName

Select the subscription where the Storage account reside

Select the Azure File Share that Match the Sync Group Name

Click on **“Create”**

[Home](#) > [azuselzprdcrlsta0201-FileSync-P01](#) >

Sync group ...

Start by specifying an Azure file share to sync with - this is the sync group's cloud endpoint.

You can specify a folder on your servers you want to sync later.

[Learn more](#)

Sync group name

Cloud endpoint

Subscription

Storage account

Select storage account

Azure File Share

Create

Cancel

Click on the Sync Group that we just created, then click on **“Add server endpoint”**

[Home](#) > [azuselzprdc1rsta0201-FileSync-P01](#) >

swvrocf1safsp01-fs-e-legacy-castweb ...

Sync group

 Add cloud endpoint  **Add server endpoint**  Refresh  Delete

Cloud endpoint

Azure File Share	↑↓ Provisioning State
azuselzprdc1rsta0201-swvrocf1safsp01-fs-e-legacy-castweb	✓

0 server endpoints

Server	↑↓ Health	↑↓ Files Not Syncing	↑↓ Sync Activity
No items to display.			

Select the registered server

Enter the path that match the File Share and the Sync Group Name

Enabled Cloud Tiering

Keep the Volume Free Space Policy to 20 unless something else was requested

Enable the Data Policy and enter 90 Days

Click on **“Create”**

Add server endpoint

- A specific location on the server can only sync with one sync group. Syncing the same location or even a part of it – with a different sync group doesn't work.
- Make sure that the path you specify for this server is correct.

[Learn more](#)

Registered Server *

SWVROCFLSAFSP01.blamericas.bausch.com

Path *

E:\Legacy_Castweb

☐ Files from this server path have been brought to the cloud via DataBox or other means of seeding the cloud endpoint (Azure file share) in this sync group.

i

This option supports DataBox and DataBox Heavy. DataBox Disk is not supported.

Cloud Tiering

Enabled

Disabled

Cloud Tiering transforms your server endpoint into a cache for your files in the Azure file share. Different policies help you to fine tune your cache behavior.

[Learn more](#)

Volume Free Space Policy

Always preserve the specified percentage of free space on the volume: ⓘ

20

Date Policy

Enabled

Disabled

Only cache files that were accessed or modified within the specified number of days: ⓘ

90

Initial Sync

Create

Cancel

Enabling Backup Services

Go back to the storage account, click on “File Shares”, then click on “Backup”

Home > azusclzprdcrlrsta0201 >

azusclzprdcrlrsta0201-swvrocflsafsp01-fs-e-legacy-castweb ...

File share

Search (Ctrl+/) << Connect Upload Add directory Refresh Delete share Change tier Edit quota

Overview

Diagnose and solve problems

Access Control (IAM)

Settings

Properties

Operations

Snapshots

Backup

Search files by prefix

Name

.SystemShareInformation

Attachments

Legacy CATSWeb Archive Records - Audit Trail.xlsx

Legacy CATSWeb Final Records.xlsx

Select the Default Vault Name for the Subscription

Select the Default backup Policy for AFS servers: **DefaultAFSPolicy**

Click on **Enable Backup**

Home > azusclzprdcrlrsta0201 > azusclzprdcrlrsta0201-swvrocflsafsp01-fs-e-qlo-rheocalc

azusclzprdcrlrsta0201-swvrocflsafsp01-fs-e-qlo-rheocalc | Backup ...

File share

Search (Ctrl+/) <<

Overview

Diagnose and solve problems

Access Control (IAM)

Settings

Properties

Operations

Snapshots

Backup

Welcome to Azure Backup for Azure file shares

Simple and reliable file share backup to the cloud. [Learn more.](#)

Review the following information and click on 'Enable backup' to start protecting your file share.

Recovery Services vault [?] ☐ Create new ☒ Select existing

Vault Name

Choose backup policy * [?] [Create a new policy](#)

Policy Details

Full Backup

Backup Frequency
Daily at 9:00 PM Eastern Standard Time

Retention of daily backup point
Retain backup taken every day at 9:00 PM for 180 Day(s)

Retention of monthly backup point
Retain backup taken every month on First Sunday at 9:00 PM for 12 Month(s)

Retention of yearly backup point
Retain backup taken every year in January on First Sunday at 9:00 PM for 7 Year(s)

Storage account lock [?] ☒ Enabled

Configuring backup of this file share will automatically enable soft-delete for all file shares in the respective storage account to provide protection against accidental deletion.

Enable Backup